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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,550	07/11/2003	Gregory Alan Beckman	19038- IA	5164

7590

10/03/2005

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EXAMINER

DRODGE, JOSEPH W

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/618,550	Applicant(s) BECKMAN ET AL.	
	Examiner Joseph W. Drodge	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 33-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 33-38 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0205</u> . | 6) <input type="checkbox"/> Other: ____. |

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The drawings were received on 12/08/03. These drawings are objected to.

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the set of replacement drawings is incomplete in that it does not encompass replacement of all of the originally filed drawings. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-32, drawn to interlocking or interconnecting filtration modules, classified in class 210, subclass 323.1.
- II. Claims 33-38, drawn to a biological filtering system, classified in class 210, subclass 151.

The inventions are distinct, each from the other because:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as in interconnecting membrane filtration modules for physical rather than biological filtration. See MPEP § 806.05(d).

Claim 23 link(s) inventions I and II. The restriction requirement of the linked inventions is subject to the nonallowance of the linking claim(s), claim 23. Upon the

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allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Allen Darden on September 26, 2005, a provisional election was made with traverse to prosecute the invention of Group I,

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claims 1-32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 33-38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claims 3-7,9 and 27-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In each of claims 3 and 27 and claims dependent therefrom, no antecedent basis is present for either of "means for joining" or "means for sealing a joint", nexus and relationship to other components is also missing for each of these two respective limitations.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9,15,16 and 24-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Driscoll et al patent 4,517,085.

Driscoll et al disclose interconnected filter modules, each comprising housings 18 with inlets and outlets and filter media 94, and means for interconnecting the modules 22/88 [as in claims 1,24 and 25].

The following is disclosed per dependent claims: formation of a single volume body/cell by housing 12 for claims 2 and 26, interconnecting flanges 82,84,85 and 112,

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caulking or sealing means (column 4, lines 49-50) and joining components (figure 3 and column 4, lines 52-63) for claims 34,,6 and 27 and 28; gaskets/lip seals at column 4, lines 18 and 24 for claims 5 and 28; and FRP plastic or equivalent at column 4, line 30 for claims 8,9 and 28.

Claims 1-3,5,6,10,15,16,24-27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Koster patent 4,295,965.

Koster discloses a filtration system having plural modules with cassette filters joined and interlocked together, each comprising filtration elements (column 2, lines 1-9 and column 2, line 44-column 3, line 2 and claim 8 of the reference).

For claims 2 and 26, each filter has a housing encompassing covers 81 and walls 82 and are joined together to form single volume or cell by being bounded to the same base portion 1 or 9 and same base plate 91.

For claims 3,5,6,23,25 and 27, also see interlocking flanges with slits 89 and 92 (column 2,lines 64-67 and 59-61), joining means (suction boxes 1,3,5) and gasket or sealant at column 4, lines 39-40.

For claims 10 and 29, see biological filter at column 4, line 22.

For claims 15 and 16, a mechanical filter is disclosed at column 4, line 20.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11-14,17and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koster patent 4,295,965 in view of Lee et al patent 5,961,831.

In general, these claims differ in requiring various filtration media types encompassing a more complete aquarium or aquatic life filtration system which are all taught by Lee et al and obvious to include with the Koster system, for more thorough purification of recirculating aquarium, aquaria system water to enable aquatic life to better thrive.

For claims 11 and 17, It would have been obvious to have included the carbon dioxide stripper atought by Lee et al at column 13, lines 53-57 to improve quality of the entrained air bubbles ingested by the aquatic life.

For claims 12 and 17, it would have been obvious to have included a foam fractionator taught by Lee et al at column 5, line 40, to remove relatively light suspended contaminants.

For claims 13 and 18, it would have been obvious to have included a low-head oxygenator as at Lee et al column 3, lines 49-51 to enable bacteria that remove biological waste products to optimally grow.

For claims 14 and 18, it would have been obvious to have included a UV sterilizer as at Lee et al column 3,lines 54-55, to remove bacteria that would otherwise be harmful to aquatic life processes.

Claims 19,20,23, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koster patent 4,295,965 in view of Munsch et al patent 5,667,671.

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These claims differ in requiring the biological filter to encompass elements of vertical and centrally located baffle, air manifold, retaining screen and large surface area. Koster teaches such baffles 106, air manifold (column 6, lines 44-56), and large surface area of biological filter media at large plastic balls 174 and also retaining screen 172. It would have also been obvious to have modified the biological filter of Koster to include such air manifold, retaining screen, baffle and large surface area, to optimize oxygenation, prevent loss of the filtration media, promote longer residence times and optimize contact with the purifying bacteria, respectively.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koster in view of Munsch et al as applied to claim 20 above, and further in view of Willinger patent 4,714,547. These differ in requiring the biological media to comprise extruded polyethylene or polystyrene. It would have also been obvious to have utilized media of extruded polymer, as taught by Willinger at column 4, lines 25-41 and 58-68 for the ease of manufacture of such media.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cheyne patent 6,641,732, Guoli et al patent 5,728,293 and Newsteder patent 3,513,978 additionally teach somewhat modular or cassette type filtration systems that encompass some form of biological filtration and generally for purification of aquatic life.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

September 27, 2005


JOSEPH DRODGE
PRIMARY EXAMINER